

Docket No.: 1013-029

Application No.: 10/671,867

IN THE CLAIMS

Please amend claims 1, 5, 7, 16, 19, 20, 21 and 22 as follows:

1. *(Currently amended)* A variable flow float flowmeter comprising a fluid inlet including an adaptor, an upper fluid inlet body including a fluid inlet passage and a flow detector including a fluid circulation passage and a flow measurement passage comprising a vertical conical passage including a sphere, a lower body arranged for enabling the fluid to exit through it, an adjuster for the fluid flow, and a fluid outlet passage, the upper fluid inlet body being fixed to the lower fluid outlet body, the upper body including a cast single piece assembly arranged so the inlet passage leads towards [[a]] the flow measurement passage communicating with one end of the fluid circulation passage which also communicates, through its other end, with the flow adjuster leading towards the outlet passage.
2. *(Cancelled)*
3. *(Previously presented)* A variable flow float flowmeter according to claim 1, wherein the flow adjuster includes a disk arranged to be rotatably driven, the disk including holes with diameters and spacing between each other, the diameters and spacing of the holes being arranged so that during fluid distribution, the whole diameter of at least one hole always directly faces the outlet passage regardless of the position of the disk, to enable uninterrupted fluid distribution, even during flow adjustment, the disk and the outer passage being arranged to provide gradual adjustment of the

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flow in response to turning of the disk as a function of progressive change in the diameter of at least one of the hole(s) and in the density of the holes facing the outlet passage.

4. *(Previously presented)* A variable flow float flowmeter according to claim 1, wherein the upper fluid inlet body base has dimensions that are the same as the dimensions of the lower fluid outlet body, the upper fluid inlet body being fixed to the lower body by screws at its four corners, by gluing, by welding or by clipping.

5. *(Currently amended)* A variable flow float flowmeter according to claim 1, wherein the fluid inlet passage is substantially perpendicular to the flow measurement passage including the [[ball]] sphere.

6. *(Previously presented)* A variable flow float flowmeter according to claim 1, wherein the flow measurement passage including the sphere is slightly conical.

7. *(Currently amended)* A variable flow float flowmeter according to claim 1, wherein the flow measurement passage including the ball sphere includes a transparent graduated wall on at least one portion, the wall being arranged so that a user can see the [[ball]] sphere and read the resulting flow.

8. *(Previously presented)* A variable flow float flowmeter according to claim 1, wherein the flow measurement passage and the fluid circulation passage have parallel longitudinal axes.

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9. *(Previously presented)* A variable flow float flowmeter according to claim 1, wherein the fluid circulation passage is slightly conical.

10. *(Previously presented)* A variable flow float flowmeter according to claim 3, wherein the holes are- perforated in the disk.

11. *(Previously presented)* A variable flow float flowmeter according to claim 3, wherein the disk includes at least two concentric rows of holes with precise dimensions, the holes in each row being arranged to be offset from the holes in the other row and being at a regular angular spacing, the diameter of the holes encountered in sequence in a given rotation direction varying gradually for each successive hole belonging to two different rows and adjacent along the angular direction, the spacing between successive holes in two rows being less than the diameters of the fluid inlet and outlet passages in the body, the fluid outlet or inlet passage facing several holes in the disk to enable gradual flow adjustment without interrupting the fluid flow in response to turning of the disk.

12. *(Previously presented)* A variable flow float flowmeter according to claim 3, further including a knob for turning in the body fixed in rotation with the disk so that the knob can be turned to adjust the flow, a passage in the knob enabling fluid circulation as far as the precision holes in the fluid flow adjustment disk.

13. *(Previously presented)* A variable flow float flowmeter according to claim 1, wherein the disk includes at least two concentric rows of holes with precise dimensions and a hole in a lower part of the body forms the fluid outlet passage, the diameter of the outlet passage being greater than

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the spacing between at least two holes in the same row in the disk to assure that the outlet passage is always facing three holes in the disk.

14. (*Previously presented*) A variable flow float flowmeter according to claim 12, further including O-rings arranged in grooves in the periphery of the cylindrical surface of the knob, and on the internal peripheral surface of a skirt of the knob and the lower and upper parts of the body including the inlet passage and the outlet passage respectively, and a seal between the disk and the outlet passage in a larger diameter hole than the fluid outlet passage.

15. (*Previously presented*) A variable flow float flowmeter according to claim 12, wherein the knob is knurled on its external periphery and projects on at least one face of the body so that it can be turned manually.

16. (*Currently amended*) A variable flow float flowmeter according to claim 12, wherein the body includes two pieces of moulded molded plastic material, at least partially enclosing the knob and the disk.

17. (*Previously presented*) A variable flow float flowmeter according to claim 12, wherein the diameter of the disk is smaller than the diameter of the knob.

18. (*Previously presented*) A variable flow float flowmeter according to claim 3, wherein the outer passage facing the disk faces at least three of the holes.

19. (*Currently amended*) A variable flow float flowmeter comprising a fluid inlet including an adaptor, an upper fluid inlet body including a fluid inlet passage, a flow detector including a

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slightly conical fluid circulation passage and a flow measurement passage comprising a vertical conical passage including a sphere and a slightly conical fluid circulation passage, and a lower body arranged for enabling the fluid to exit through it, an adjuster for the fluid flow, a fluid outlet passage, the upper fluid inlet body being fixed to the lower fluid outlet body, the upper body including a cast single piece assembly having an inlet passage, [[a]] the flow measurement passage communicating with the inlet passage and a fluid circulation passage, the passages being formed and arranged for enabling fluid to communicate through one end with the flow measurement passage and through the other end with [[a]] the flow adjuster leading towards the outlet passage.

20. (*Currently amended*) A variable flow float flowmeter comprising a fluid inlet including an adaptor, an upper fluid inlet body including a fluid inlet passage, a flow detector including a fluid circulation passage and a flow measurement passage comprising a vertical conical passage including a sphere and a fluid circulation passage, and a lower body arranged for enabling the fluid to exit through it, an adjuster for the fluid flow, a fluid outlet passage, the upper fluid inlet body being fixed to the lower fluid outlet body, the upper body including a cast single piece assembly having an inlet passage, [[a]] the flow measurement passage communicating with the inlet passage and a fluid circulation passage, the passages being formed and arranged for enabling fluid to communicate through one end with the measurement passage and through the other end with [[a]] the flow adjuster leading towards the outlet passage, the flow adjuster including a disk arranged to be rotatably driven, the disk including holes arranged so at least one hole always faces the outlet passage, regardless of the position of the disk, to enable fluid distribution without interruption even during the flow adjustment, at least one of the diameter of the hole(s) and the density of the holes facing the outlet passage being arranged to

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provide gradual adjustment of the flow in response to turning of the disk, the disk including at least two concentric rows of holes with precise dimensions, the holes in each row being arranged to be offset from the holes in the other row and being at a regular angular spacing, the diameter of the holes encountered in sequence in a given rotation direction varying gradually for each successive hole belonging to two different rows and adjacent along the angular direction, the spacing between successive holes in two rows being less than the diameters of the fluid inlet and outlet passages in the body, the fluid outlet or inlet passage facing several holes in the disk to enable gradual flow adjustment without interrupting the fluid flow in response to turning of the disk.

21. *(Currently amended)* A variable flow float flowmeter comprising a fluid inlet including an adaptor, an upper fluid inlet body including a fluid inlet passage and a flow detector including a fluid circulation passage and a flow measurement passage comprising a vertical conical passage including a sphere, a lower body arranged for enabling the fluid to exit through it, an adjuster for the fluid flow, and a fluid outlet passage, the upper fluid inlet body being fixed to the lower fluid outlet body, the upper body including a cast single piece assembly arranged so the inlet passage leads towards [[a]] the flow measurement passage communicating with one end of the fluid circulation passage through its other end, with the flow adjuster leading towards the outlet passage, the flow adjuster including a disk arranged to be rotatably driven, the disk including holes with diameters and spacing between each other, the diameters and spacing of the holes being arranged so that during fluid distribution, the whole diameter of at least one hole always directly faces the outlet passage regardless of the position of the disk, to enable uninterrupted fluid distribution, even during flow adjustment, the disk and the outer passage being arranged to provide gradual adjustment of the flow in response to

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turning of the disk as a function of progressive change in the diameter of at least one of the hole(s) and in the density of the holes facing the outlet passage, the flowmeter further including a knob for turning in the body fixed in rotation with the disk so that the knob can be turned to adjust the flow, a passage in the knob enabling fluid circulation as far as the precision holes in the fluid flow adjustment disk, and the flowmeter further including O-rings arranged in grooves in the periphery of the cylindrical surface of the knob, and on the internal peripheral surface of a skirt of the knob and the lower and upper parts of the body including the inlet passage and the outlet passage respectively, and a seal between the disk and the outlet passage in a larger diameter hole than the fluid outlet passage.

22. (*Currently amended*) A variable flow float flowmeter comprising a fluid inlet including an adaptor, an upper fluid inlet body including a fluid inlet passage and a flow detector including a fluid circulation passage and a flow measurement passage comprising a vertical conical passage including a sphere, a lower body arranged for enabling the fluid to exit through it, an adjuster for the fluid flow, and a fluid outlet passage, the upper fluid inlet body being fixed to the lower fluid outlet body, the upper body including a cast single piece assembly arranged so the inlet passage leads towards [[a]] the flow measurement passage communicating with one end of the fluid circulation passage which communicates through its other end, with the flow adjuster leading towards the outlet passage, the flow adjuster including a disk arranged to be rotatably driven, the disk including holes with diameters and spacing between each other, the diameters and spacing of the holes being arranged so that during fluid distribution, the whole diameter of at least one hole always directly faces the outlet passage regardless of the position of the disk, to enable uninterrupted fluid distribution, even during flow adjustment, the disk and the outer passage being arranged to provide gradual adjustment of the

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flow in response to turning of the disk as a function of progressive change in the diameter of at least one of the hole(s) and in the density of the holes facing the outlet passage, the flowmeter further including a knob for turning in the body fixed in rotation with the disk so that the knob can be turned to adjust the flow, a passage in the knob enabling fluid circulation as far as the precision holes in the fluid flow adjustment disk, the body including two pieces of molded plastic material, at least partially enclosing the knob and the disk.